

National Climatic Data Center

DATA DOCUMENTATION

FOR

DATASET 5681 (DSI-5681)

UPPER AIR RAWINSONDE OBSERVATIONS - GLOBAL GTS

December 12, 2003

National Climatic Data Center
151 Patton Ave.
Asheville, NC 28801-5001 USA

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1. Abstract: Tape deck 5681 is a historical, composite data set that NCDC built from upper air data received from the Air Force's Global Weather center (GWC) and NOAA's National Meteorological Center (NMC). NCDC converted these two sources separately into TD-5681, then merged the two giving priority to the NMC source.

Major parameters which make up this file are number of levels, pressure of level, height of level, temperature of level, relative humidity of level, wind direction and speed of level.

2. Element Names and Definitions:

Position	Element Name	Definition
01-04	Block Length	Number of Bytes in this physical record - binary. This occurs once each block
05-08	Observation Length	Number of bytes in this logical record - binary. This field occurs at the beginning of each observation.
09-12	Deck Number	Unique for each type or source of data. 5681 - GTS Rawinsonde 5682 - SIRS 5684 - Pilot 5686 - Satellite Wind Vectors 5687 - Carrier Balloons 5688 - Constant Level Balloons
13-17	Station Number or Latitude	WMO block index number or latitude in degrees and tenths. ± 99LaLaLa = Ships, Balloons ETC. ± 00LaLaLa = SIRS and Satellite Winds Signed Position: + = Northern Hemisphere - = Southern Hemisphere
18-19	Year	78 = 1978 Etc.
20-21	Month	01-12 = Jan-Dec
22-23	Day	01-31 = Day of Month
24-25	Hour	00-23 GMT
26-27	Number of Levels	Number of 25 character levels contained in this observation.
28-33	Blank or Longitude	Blank for land stations - west longitude in degrees and tenths for other observations. 99LoLoLoLo = Ships, Balloons Etc. 00LoLoLoLo = SIRS and Satellite Winds LoLoLoLo = 000.0-360.0 starting at zero meridian and increasing in westerly direction. 090.0 = 90.0°W 270.0 = 90.0°E
34-38	Pressure	Pressure of the level in millibars and tenths
39-42	Height	Height of the level, above sea level, in geopotential meters. Signed Plus = Height above sea level Signed Negative = Height below sea level
44-46	Temperature	Temperature of the level in degrees Celsius and tenths. Signed Plus = Positive temp Signed Negative = Negative temp

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47-49	Relative Humidity	Relative humidity of the level in whole percent. Signed Plus = Actual relative humidity Signed Negative = Statistical relative humidity
50-52	Wind Direction	Wind direction of the level in whole degrees.
53-55	Wind Speed	Wind degrees of the level in meters per second.
56	Height indicator	Height indicator for the level. Blank = Height as reported 1 = Height computed 2 = Height recomputed during QC
57	Temperature Indicator	Temperature indicator for the level. Blank = Height as reported 1 = Height computed 2 = Height recomputed during QC
58	Blank	This could be used for other QC information.

Each data level is 25 bytes. Missing data fields are coded as all 9's with signed fields being signed minus. The first level is always the surface level. All other level then follow in decreasing pressure or ascending height order. For those observations where no surface data are available the first level is 9 filled. Observations are packed as many as possible into variable length blocks that for not exceed 6000 bytes.

3. **Start Date:** 19710701

4. **Stop Date:** 19781231

5. **Coverage:**

- a. Southernmost Latitude: -90.0S
- b. Northernmost Latitude: 90.0N
- c. Westernmost Longitude: -180.0W
- d. Easternmost Longitude: 180.0E

6. **How to Order Data:**

Ask NCDC's Climate Services about the cost of obtaining this data set.
Phone: 828-271-4800
FAX: 828-271-4876
E-mail: NCDC.Orders@noaa.gov

7. **Archiving Data Center:**

Archive Branch
National Climatic Data Center
151 Patton Avenue
Asheville, NC 28801

8. **Technical Contact:**

National Climatic Data Center
151 Patton Avenue
Asheville, NC 28801

9. **Known Uncorrected Problems:** None.

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10. Quality Statement:
11. Essential Companion Datasets:
12. References: